

BEFORE THE  
POLLUTION CONTROL HEARINGS BOARD  
STATE OF WASHINGTON

IN THE MATTER OF THE )  
APPLICATION FOR VARIANCE, )  
AMERICAN SMELTING AND )  
REFINING COMPANY, )  
Appellant, )  
vs. )  
PUGET SOUND AIR POLLUTION )  
CONTROL AGENCY, )  
Respondent, )  
AIR QUALITY COALITION, and )  
the WASHINGTON ENVIRONMENTAL )  
COUNCIL, )  
Cross-appellants. )

PCHB No. 70-38

FINDINGS OF FACT,  
CONCLUSIONS AND ORDER

FINDINGS OF FACT

I.

It is conceded that the Tacoma smelter of the American Smelting and Refining Company (hereafter referred to as ASARCO) is not now where it should be. It is now in a metropolitan area. It has, however, been there since 1889, and presently employs between 850 and 1150 persons and pays out about \$1,600,000 per month in wages, salaries, and other operating costs. Of these persons, approximately two thirds are employed at the smelter, the other one third at the refinery.

## II.

Production at ASARCO's smelter has increased since 1961, but capital expenditures exclusively for pollution control have been sparing. It is definitely a marginal operation with no assurance of continued existence beyond a rather limited period. On the other hand, the smelter provides a unique form of metallurgy. It serves as a cleanup plant for the industry, smelting residues from other plants which they are unable to handle.

## III.

When operating at normal capacity, ASARCO's smelter emits 11.1 tons per hour of sulphur (equivalent to 22.2 tons per hour of sulphur dioxide) principally in the form of sulphur dioxide with some  $SO_3$  included in gaseous form or as a mist. The full height of ASARCO's stack is not effectively available because the residential areas to the south of ASARCO's smelter have an elevation of approximately 400 feet; therefore, the net stack height is only 315 feet. Of the sulphur input it now recovers only 17 percent with 83 percent going into ambient air as sulphur dioxide.

## IV.

For many years the fumes and particulates emitted from the smelter have been objectionable over a considerable area; causing great inconvenience and frequently constituting a nuisance in the usual sense of that term, if not in the strictly legal sense. Damages have been paid on numerous occasions for injury to growing plants or property. No medical tests have been taken in the Tacoma area to determine whether there is a mortality occasioned by ASARCO or to determine whether there is a serious public health problem.

V.

ASARCO employs a full-time professional meteorologist, assisted by another professional meteorologist, to curtail the operations of the smelter during adverse meteorological conditions, and thus eliminate or substantially reduce the annoying episodes when SO<sub>2</sub> reaches the ground. This has ameliorated the situation, but has not remedied it.

VI.

ASARCO is ready to adopt new processes and install new equipment at an estimated cost of 14 million dollars, which would enable it to recover 51 percent of its input of sulphur, and thus reduce the sulphur emitted into the atmosphere from 83 percent to 49 percent. It, however, urges that it must have five more years of operation to justify such an expenditure.

VII.

The Puget Sound Air Pollution Control Agency (hereafter referred to as PSAPCA) was created under the provisions of our State "Clean Air Act" (Chapter 70.94 RCW). It is charged with the responsibility to secure and maintain within its territory (King, Kitsap, Pierce and Snohomish Counties) "such levels of air quality as will protect human health and safety." It is also charged by statute with the further responsibility:

" . . . to the greatest degree practicable, prevent injury to plant and animal life and property, foster the comfort and convenience of its inhabitants, promote the economic and social development of the state and facilitate the enjoyment of the natural attractions of the state . . ."  
(RCW 70.94.011)

#### VIII.

Regulation I, adopted on March 13, 1968, established ambient air standards, which standards were amended effective August 12, 1970, and are applicable throughout the four-county area. A condition established by the amendment of Regulation I referred to throughout the hearings as the 90 percent emission control standard, requires the recovery in the plant of approximately 90 percent of any sulphur input, permitting only 10 percent of the sulphur input to be emitted into the ambient air.

#### IX.

This emission is, as indicated, in the form of sulphur dioxide ( $\text{SO}_2$ ). Nature is constantly producing  $\text{SO}_2$  and it is always present in the air. It is the emissions from various sources such as industrial plants which increase the concentrations of  $\text{SO}_2$  in the air to a point that the odor becomes noticeable and objectionable, a source of inconvenience which in still greater concentrations could become dangerous to health and safety.

#### X.

ASARCO applied for a five year variance which would permit it to operate for that time without complying with the 90 percent emission standard and certain other standards. PSAPCA by its Resolution #130 dated January 13, 1971, granted ASARCO a three year variance from certain standards for certain periods on certain conditions.

XI.

This variance made it clear that public health and safety would not be endangered by a failure of ASARCO to meet the 90 percent emission standard, if the present and proposed program to control particulate emissions will limit particulate emissions as provided in the regulations, and when the 60 minute, 24 hour, 30 day and 365 day standards (Section 9.07 of Regulation I [sulphur emission standards]) are not exceeded.

XII.

ASARCO has appealed that variance to this Board. The basic contentions of ASARCO on this appeal are:

1. That there should be no requirement of 90 percent emission control (which is in effect a requirement that 90 percent of the input sulphur must be recovered within the plant); that it is an unreasonable and impracticable standard.

2. That its proposed program for the recovery of 51 percent of the input sulphur, which would give 51 percent emission control, together with curtailment of operations from time to time based upon the application of ASARCO's meteorological prediction and curtailment program, will adequately solve the problem which its continued operation presents.

3. That this proposed program will cost approximately 14 million dollars, and that it cannot afford to spend that amount unless assured of a variance for five years.

4. That the variance does not provide a sufficient period of time for ASARCO to decide whether it will achieve the PSAPCA sulphur dioxide emission standard at the Tacoma smelter.

#### XIII.

The Air Quality Coalition and the Washington Environmental Council intervened as cross-appellants, were represented by counsel throughout, participated in all of the proceedings, introduced testimony and cross-examined ASARCO witnesses.

#### XIV.

Technological processes are available to meet the 90 percent emission standard, and the problem becomes one of economic feasibility assuming as ASARCO contends, that these processes cannot be adapted and operated on a basis that makes them economically feasible. It is entirely possible that within a relatively short time there may be technological advances which would make the attaining of such a standard economically feasible for ASARCO.

#### XV.

Processes are available and economically feasible given a reasonable operations period which could be adapted to ASARCO's Tacoma smelter, which would enable it to recover 51 percent of the input of sulphur, which is three times better than its present rate of recovery of 17 percent.

#### CONCLUSIONS

##### I.

The questions of the validity or propriety of the 90 percent

emission standard, presently a part of Regulation I of the PSAPCA, are not before this Board; we are concerned only with terms of the variations from that and other standards contained in the variance which is the subject of this appeal.

## II.

If ASARCO complies with the terms and conditions of the variance which are included to protect the public health and safety, as are set out in Finding XI, there is no issue of public health and safety before this Board. At any time the operation becomes dangerous to public health and safety, the variance may be terminated by appropriate action.

## III.

ASARCO cannot expect a permanent variance. It must agree to meet the 90 percent emission standard, or whatever standard may replace it, or the variance may be terminated according to its terms.

## IV.

The sole question, therefore, before this Board is whether the terms of the variance provide a reasonable progression toward eventual compliance by ASARCO with PSAPCA's emission standard, or a decision by ASARCO that it cannot comply.

## V.

Such reasonable progression assumes critical importance at this time because a precipitous permanent closure of the smelter would cause individual hardships and serious community economic loss in the period of major unemployment now being experienced in

Tacoma and the Puget Sound region.

VI.

PSAPCA's variance order has the proper final objective; it demands compliance with its emission standard. It also is commendable in its interim safeguards for the protection of human health and safety. But the variance order is too severe in its progression toward its goal. In the opinion of this Board, the variance is unreasonable on two points. It does not provide a sufficient amortization period for the investment necessary to achieve 51 percent emission control. The Board also feels in view of testimony as to the uncertain state of technology for achieving economically feasible removal of 90 percent of input sulphur, that the variance does not provide a sufficient period of time for ASARCO to decide whether it will achieve that emission standard at the Tacoma smelter.

VII.

A variance order which does not give ASARCO (a) reasonable time to amortize a necessary investment, and (b) does not provide sufficient time to make an uncertain technological decision could cause precipitous permanent closure of the smelter in a time of critical economic stress.

VIII.

The Pollution Control Hearings Board has no authority to issue variances or rewrite variances issued by PSAPCA or any other similar authority. However, the Board suggests serious consideration by PSAPCA of these particulars:



1. ASARCO to achieve 51 percent emission control by December 31, 1973, or 24 months following the last day of the month in which a variance order is issued in accordance with this order, whichever is later, and to maintain at all times an acceptable meteorological curtailment program.

2. ASARCO to agree on or before December 31, 1974, to achieve PSAPCA's emission standard by December 31, 1976.

3. If ASARCO does not agree by December 31, 1974, to achieve PSAPCA's emission standard by December 31, 1976, the variance is to cease on December 31, 1975, or 48 months following the last day of the month in which a variance order is issued in accordance with this order, whichever is later.

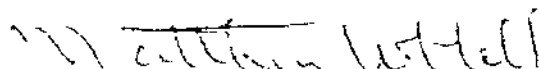
Therefore, pursuant to the Findings of Fact and these Conclusions, the Pollution Control Hearings Board issues the following

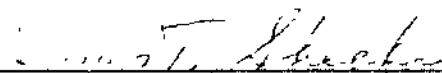
#### ORDER

The date contained in the third line of Section 1 of PSAPCA's variance order (Resolution #130), all of subsections (1) and (2), and the dates contained in subsections (6) and (7) of Section 1 be, and they are hereby, reversed and remanded to PSAPCA for entry of a variance order which is in accord with these Findings of Fact, Conclusions and Order.

DONE at Olympia, Washington this 22nd day of December, 1971

POLLUTION CONTROL HEARINGS BOARD

  
MATTHEW W. HILL, Chairman

  
JAMES T. SHEEHY, Member

  
WALT WOODWARD, Member